DOCUMENT RESUME

ED 308 918 JC 890 354

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TITLE Semesters, Enrollment, and Retention: The Effect of Converting from Quarters to Semesters on Enrollment and Retention in the Virginia Community College System.
INSTITUTION Virginia State Dept. of Community Colleges, Richmond.
PUB DATE Aug 89
NOTE 39p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Community Colleges; *Enrollment; *Enrollment Trends; Full Time Equivalency; Full Time Students; Grades (Scholastic); Part Time Students; Quarter System; *School Holding Power; *Semester System; Statistical Surveys; Student Adjustment; Tables (Data); Two Year Colleges
IDENTIFIERS *Virginia

ABSTRACT

The Virginia Community College System (VCCS) converted from a quarter to semester calendar at the beginning of the 1988-89 academic year. A study was conducted after the first year of the use of the new calendar to determine its effects on enrollment and student persistence. Full- and part-time enrollment data and student retention rates for 1988-89 were compared with data for previous years. Study findings included the following: (1) enrollment, as measured by annual full-time equivalent students (FTES), continued to increase at about the same rate as the previous two years; (2) though annual FTES for the system as a whole increased, fall term FTES decreased; (3) more full-time students, but fewer full-time degree students, were enrolled than in the previous fall quarter; (4) fewer part-time students were enrolled than in the previous fall quarter; (5) the enrollment of 18 to 21 year-old full-time students continued to increase at approximately the same rate as the previous two years; (6) the number of full-time occupational degree students decreased at 15 of the 23 colleges in the VCCS, while the number of full-time university parallel students increased at 18 of the colleges; (7) all but one of the colleges experienced an increase in the retention of full-time degree students from the fall to the spring terms; (8) the retention rate for the system as a whole increased from 76.5% to 83.0%; and (9) productive grades were highly correlated with student retention, particularly for full-time university parallel degree students. (JMC)

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The Effect of Converting from Quarters to Semesters

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Don Puyear

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Don Puyear

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Virginia Community College System, 101 North 14th Street, Richmond, VA 23219

Summary

The Virginia Community College System converted from the quarter to the semester calendar at the beginning of the 1988-89 academic year. This paper examines various issues related to enrollment and student retention based on the first year of operation under the semester calendar and makes comparisons with recent years under the quarter calendar. The following are the key findings of this investigation:

- Enrollment, as measured by annual full-time equivalent students (FTES), continued to increase at about the same rate it had been increasing in the past two years. By this measure, 21 of the colleges, and the system as a whole, experienced an enrollment increase; 2 colleges experienced an enrollment decline.
- Fall Semester enrollment, both headcount and FTES, was less than for the previous Fall Quarter. Nine of the colleges had an increase in Fall term FTES while 14 of the colleges and the system as a whole had a decrease.
- There were more full-time students, but fewer full-time degree students, than were enrolled in the previous Fall Quarter.
- There were fewer part-time students than were enrolled in the previous Fall Quarter.
- The enrollment of 18 to 21 year old full-time students continued to increase at about the same rate as had been experienced in both of the previous two years.
- There was a decrease in the number of full-time occupational degree students at 15 of the 23 colleges and for the system as a whole.
- There was an increase in the number of full-time university parallel students at 18 of the 23 colleges and for the system as a whole.
- All but one of the colleges experienced an increase in the retention of full-time degree students from the Fall to the Spring terms. The rate of retention of full-time degree students

from Fall to Spring terms for the system as a whole increased from 76.5% to 83.0%. This gain in retention of students from fall to spring accounted for much of the increase in annual FTES enrollment.

- Productive grades continue to be highly correlated with student retention, particularly for full-time university parallel degree students.
- Both the largest and the smallest colleges tend to have lower retention rates for full-time degree students than mid-sized colleges.

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Semesters, Enrollment, and Retention

The Effect of Converting from Quarters to Semesters

on

Enrollment and Retention in the Virginia Community College System

INTRODUCTION

The Virginia Community College System converted from the quarter to the semester calendar at the beginning of the 1988-89 academic year. When this conversion was being considered, there was concern that it might have a negative effect on enrollment and retention. This paper addresses these concerns based on the first year of operation under the semester calendar. Inasmuch as the initial year of operation under a new calendar may not be typical of future years, these data must be treated with some caution. Nonetheless, the question is sufficiently urgent that this preliminary analysis seems appropriate.

In this paper, enrollment data for both full-time and part-time students are compared with those for recent years under the quarter calendar. Retention of full-time degree students from term to term during the final three years of operation under the quarter calendar was the topic of a recent paper by the author.[1] Student retention during the first year under the semester calendar is compared with the retention rates reported in this earlier paper.

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[1]Don Puyear, "Student Retention in the VCCS--Academic Years 1985-86 through 1987-88" (Richmond: Virginia Community College System, January, 1989).

ENROLLMENT

As is illustrated in Figure 1, and demonstrated more fully in Table 1 in the appendix, enrollment at VCCS colleges, as measured by annual full-time equivalent students (FTES), has generally been increasing. This trend was neither accelerated nor retarded by the change from quarters to semesters.

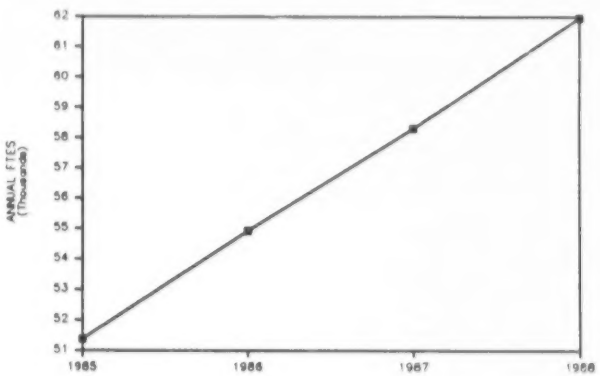

Figure 1. VCCS Enrollment (Annual FTES)

Fall Semester Enrollment

Fall Semester enrollment, however, was smaller than for the previous Fall Quarter, both in full-time equivalent students (Figure 2 and Table 2) and in total student headcount (Figure 3 and Table 3).

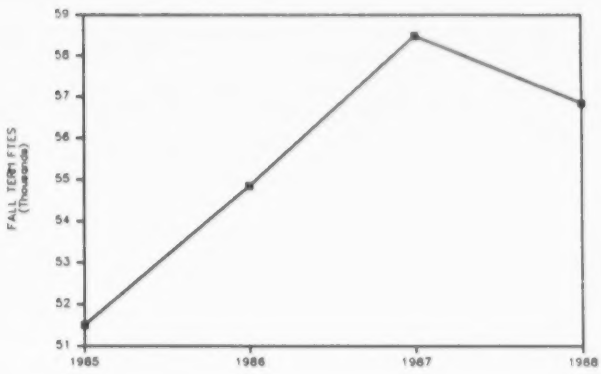

Figure 2. VCCS Fall Enrollment (FTES)

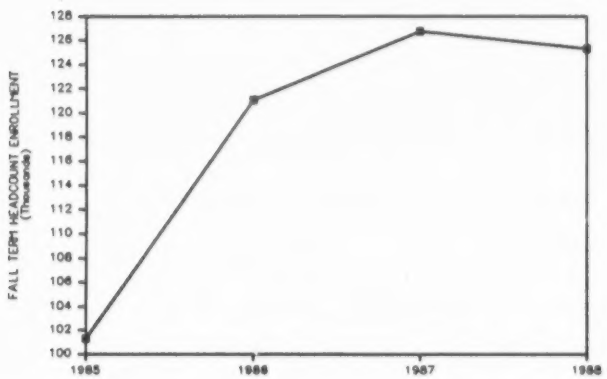

Figure 3. VCCS Fall Headcount Enrollment

The headcount enrollments reported in Figure 3 (and in Table 3 in the Appendix) are end-of-term figures rather than the mid-term figures reported to the State Council of Higher Education. The use of end-of-term figures ensures that all activities during the semester are considered, including short courses for business and industry that are omitted from mid-term figures.

Full-Time Students and Part-Time Students

Fall term full-time student enrollment continued to increase, although at a slower rate (Figure 4 and Table 4).

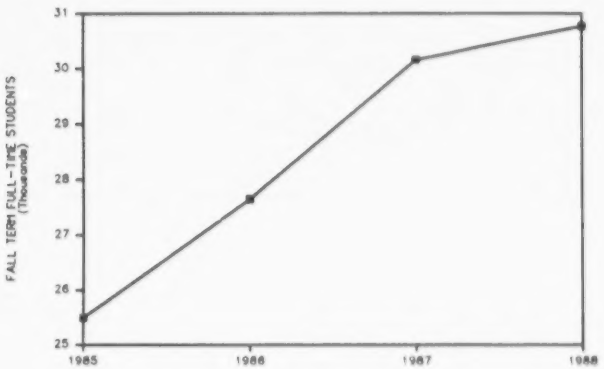

Figure 4. VCCS Full-Time Student Enrollment

However, the number of part-time students enrolled in the Fall term decreased significantly (Figure 5 and Table 5).

Various explanations for the reduction in the number of part-time students have been offered. The earlier starting time for the semester calendar (late August rather than late September) may have caught some potential part-time students by surprise. The longer term may have frightened some potential part-time students. Perhaps business and industry clients were also cautious of the longer term, even though special calendars and fractional-credit courses were possible. Or it simply may have been that college personnel were focusing on the many tasks required by the transition and did not reach out as effectively as previously to potential part-time students. The experience of more than one year will be required to determine if this loss of part-time students in the fall term is inherent in the semester calendar or was merely a phenomenon associated with the transition.

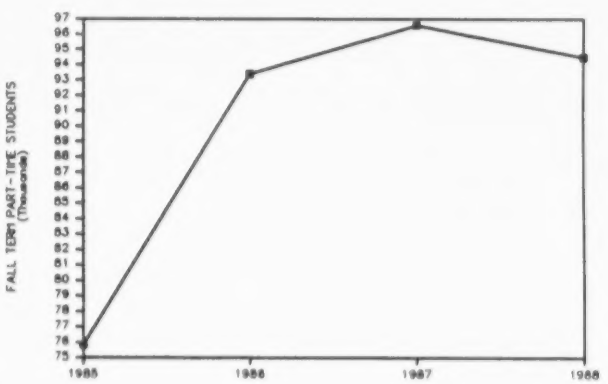

Figure 5. VCCS Part-Time Student Enrollment

The Shrinking Foundation

Full-time students who are from 18 to 21 years of age represent the "typical college student." While these students by no means dominate community college enrollments, they do represent an important market segment. They are the foundation upon which many community college instructional programs are built. In 1985, a paper that described a potential serious loss of enrollment because of a reduction in the number of potential students of this age was used to launch the current VCCS marketing and retention effort.[2] Progress in addressing this challenge was reported in subsequent papers.[3, 4]

Figure 6 illustrates the considerable progress that has been made toward meeting the challenge described in 1985. The "constant share" model shown on the figure was based on the possibility that community colleges would continue to enroll the same proportion of the available 18 to 21 year-old students that they did in 1983. Under this model, enrollment of full-time 18 to 21 year old students would decline about 18%. This was seen as the best case scenario. The worst case scenario--the "constant enrollment" model--was based on the likelihood that four-year colleges and universities would enroll the same number of students from this group that they did in 1983, and only the remainder would be available for community college enrollment. Under this model, enrollment of 18 to 21 year old full-time students would decline 51%.

In the 1984 Fall Quarter, the basis for the first paper, the actual enrollment of full-time 18-21 year old students was somewhat below the worst case scenario. Enrollment of these students continued to fall in 1985, but there was some improvement in the trend. In 1986, enrollment in-

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[2]"The Shrinking Foundation: Full Time Student Enrollment From the 18-21 Age Group in the Virginia Community College System" (Richmond: Virginia Community College System, February 1985)

[3]"The Shrinking Foundation Revisited: Changes in Full Time Student Enrollment From the 18-21 Age Group, Fall 1984 to Fall 1985" (Richmond: Virginia Community College System, January, 1986)

[4]Don Puyear, "The Shrinking Foundation: Two Years Later (Observations Regarding Full Time 'College Age' Students Attending Virginia Community Colleges, Fall 1984 though Fall 1986)" Richmond: Virginia Community College System, February 1987)

creased, and by 1987, the actual enrollment exceeded the best case projection. The enrollment of these students continued to increase in 1988.

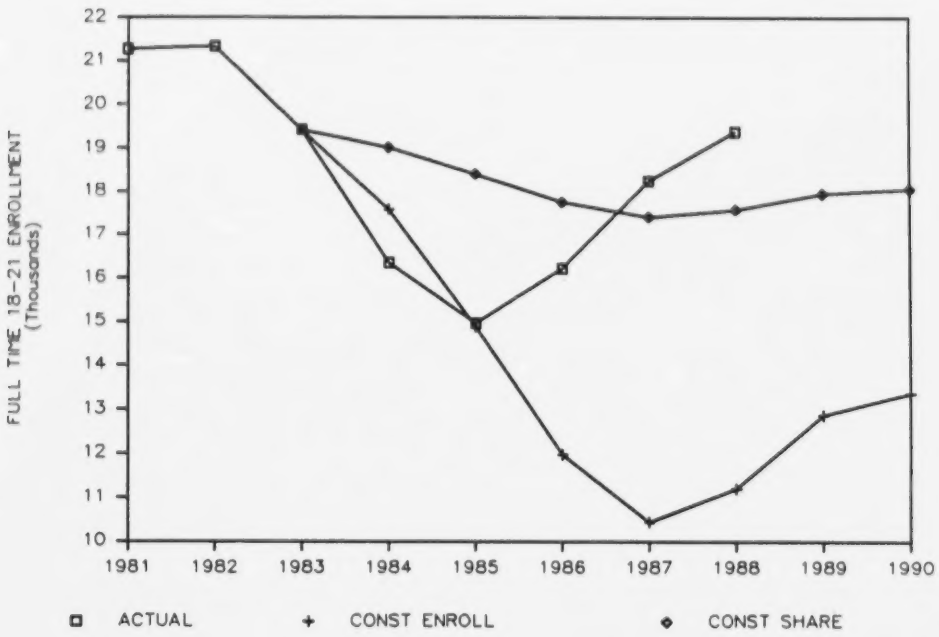

Figure 6. Projected and Actual Enrollment of Full-Time Students 18 to 21 Years of Age

Since the increase in the enrollment of full-time students 18 to 21 years of age is a continuation of the direction established during the previous two years, it is difficult to attribute this enrollment increase to the change from quarters to semesters.

Changes in Enrollment

The changes in enrollment at the individual colleges were examined to see if there was a consistent pattern throughout the system.

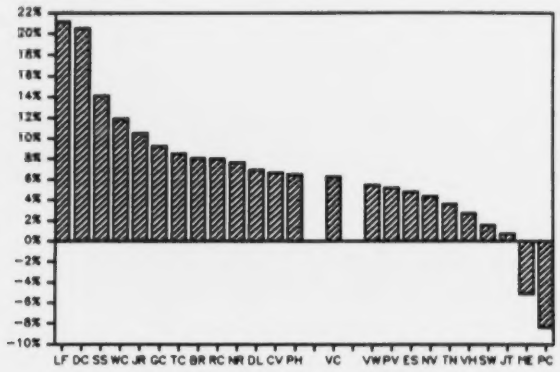

Figure 7. Changes in Annual FTES Enrollment

All but two of the colleges showed an increase in annual full-time equivalent student enrollment (Figure 7). There was, however, a considerable range in the enrollment change. Two colleges had enrollment increases in excess of 20%, while one college lost about 8% in annual FTES.

As was the case in annual FTES enrollment, fall term enrollment changes varied considerably among the colleges (Figure 8). Nine of the colleges had an increase in fall term FTES enrollment; 14 colleges and the system as a whole had a decrease. As would be expected, colleges with a large increase in annual FTES also tended to have an increase in fall term FTES, and vice versa.

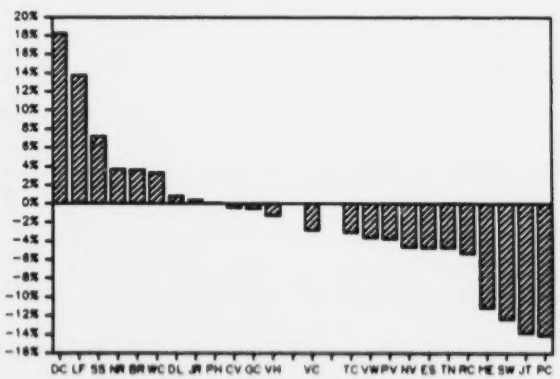

Figure 8. Changes in Fall FTES Enrollment

There is no discernable pattern to these changes in enrollment. Neither college size, region of the state, prosperity of the service region, nor any other demographic characteristic was identified as explaining the variation in the changes.

Occupational Degree Students

In the deliberations about changing to a semester calendar, concern was often expressed that occupational programs would be adversely affected by the change. The changes in full-time occupational degree enrollments between the 1987 Fall Quarter and the 1988 Fall Semester were examined to determine if this concern is corroborated.

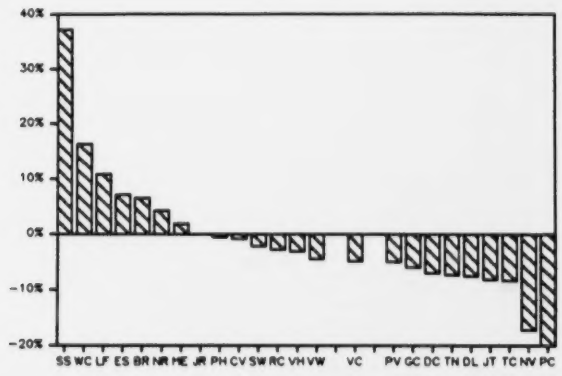

Figure 9. Changes in Full-Time Occupational Degree Student Enrollment

While the total number of full-time students increased 619 between Fall 1987 and Fall 1988 (Figure 4 and Table 4), the total number of full-time **degree** students declined slightly. (Down 67, or -0.3%: Table 8.) As will be seen on Figure 9 (and Table 8), full-time occupational degree student enrollment for the system as a whole decreased by a substantial 474 students (-4.9%). While seven colleges had an increase in full-time occupational degree students, and one college had no change, 15 colleges and the system as a whole showed a decline.

The magnitude of the decline, and the number of colleges that shared in the decline, suggest that the semester calendar may, in fact, have a negative impact on occupational programs. This matter calls for further study.

University Parallel Students

On the other hand, the enrollment of full-time university parallel degree students increased substantially. As may be seen in Figure 10, 18 of the colleges and the system as a whole showed an increase in the number of full-time university parallel students, while only five colleges had losses in this category. The system as a whole gained 407 full-time university parallel degree students, or 3.9%.

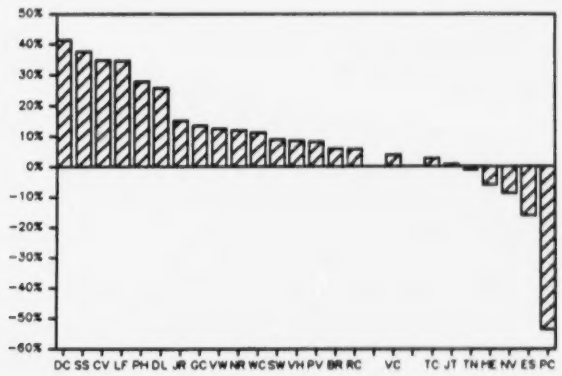

Figure 10. Changes in Full-Time University Parallel Student Enrollment

The increase in the number of university parallel students is consistent with the theory that in this the semester calendar makes community colleges more attractive for university parallel students, since it simplifies course transfer. Again, it will take additional time and study to determine if this phenomenon is inherent in the semester calendar or is merely a transient happening associated with the process of conversion.

RETENTION

The earlier paper on retention, cited on the first page, focused on full-time degree students and demonstrated that their retention was highly related to student success. Retention was defined as continued enrollment of an individual in a college from one term to another. Using the definitions from the earlier paper, this section focuses on the retention of full-time degree students from the Fall to the Spring Semester during the first year of operation under the semester calendar and compares the results with Fall Quarter to Spring Quarter retention during the final three years of operation under the quarter calendar.

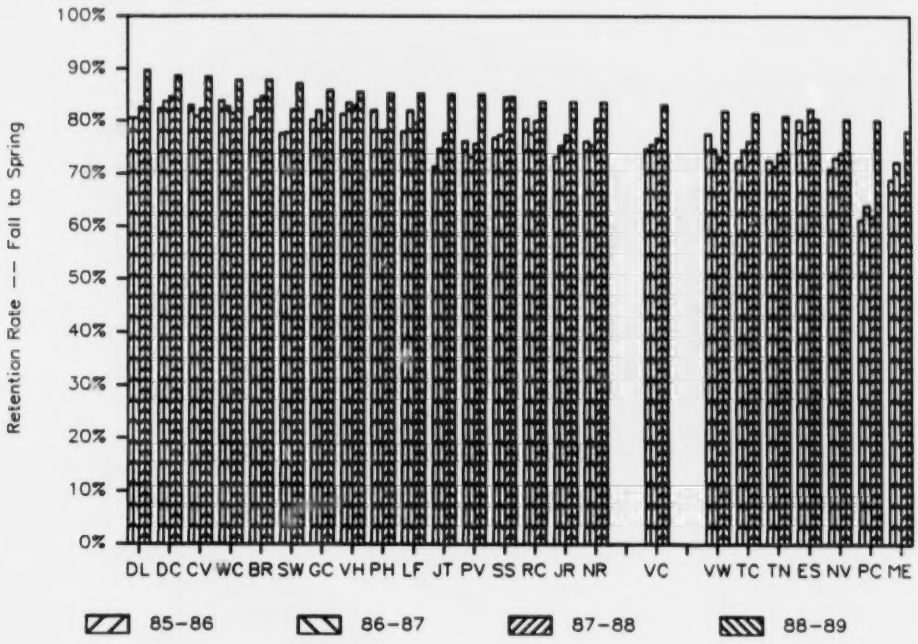

Figure 11. Retention of Full-Time Degree Students 1985-86 -- 1988-89

As may be seen in Figure 11 (and Table 9), Fall to Spring retention of full-time degree students improved significantly under the semester calendar. This may not be too surprising, since there is only one intervening registration under the semester plan, rather than two on the quarter calendar. This outcome is, nonetheless, noteworthy since it was a major factor in the improved an-

nual FTES enrollment, despite the fact that there was a slightly smaller Fall Semester FTES enrollment.

Changes in Retention Rates

As is illustrated in Figure 12, some colleges had a remarkable change in the rate of retention of full-time degree students between 1987-88 and 1988-89. The extraordinary increases in retention in the top several colleges in this category is likely more attributable to institutional efforts in marketing and student retention than it is to the semester conversion. However, the general increase, typical of the system as a whole and the middle one-half of the colleges in Figure 12, is very likely to be attributable in large part to the semester conversion. But additional study based on more than one year's data will be required to confirm this conjecture.

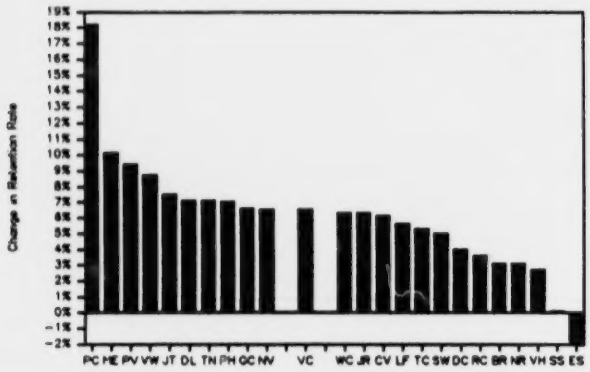

Figure 12. Changes in the Retention of Full-Time Degree Students

As may be noted in Tables 10 and 11, the retention rate of full-time university parallel degree students (82.5%: Table 10) and the corresponding rate for occupational degree students (83.8%: Table 11) are virtually the same, as is the increase in the retention rates from the previous year (6.9 percentage points for full-time university parallel degree students; 6.1 percentage points for full-time occupational degree students).

Factors Affecting Retention Rates

The earlier paper on student retention identified productive grades and college size as two factors related to student retention. Data on these factors are reviewed below to determine whether the previous relationships have been altered by the semester calendar.

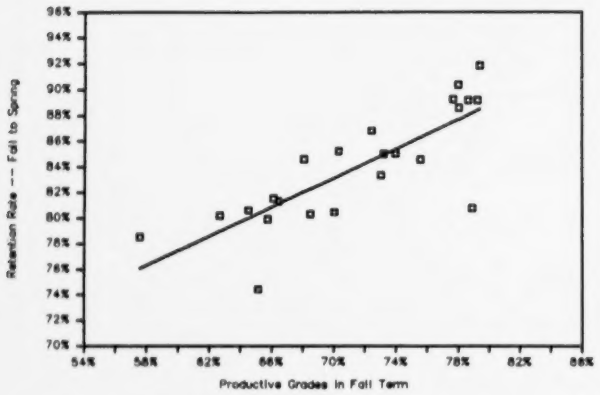

Figure 13. Productive Grades and the Retention of Full-Time University Parallel Degree Students

Productive Grades. A full-time student tends to persist when the college meets his or her needs, and to drop out when those needs are not being met. It is not surprising, therefore, that productive grades, as a measure of student success, have been found to be highly correlated with the retention of full-time degree students.

This is particularly true for full-time university parallel degree students. The striking relationship between the percentage of productive grades[5] and the retention of full-time university parallel students noted in the earlier paper is again forcefully demonstrated in the data for 1988-89.

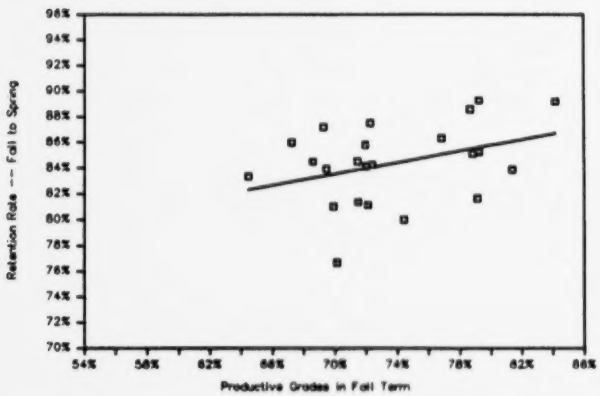

Figure 14. Productive Grades and the Retention of Full-Time Occupational Degree Students

The relationship between productive grades and the retention of full-time occupational degree students, while significant, is not

[5]"A," "B," "C," "S," and "P" grades were considered to be productive grades since they represent the successful completion of a course. "D," "F," "U," "R," "I," and "W" grades were considered to be nonproductive since they do not represent the successful completion of a course, notwithstanding the fact that some of these grades do not connote unsatisfactory progress or failure.

nearly as strong as it was in the case of university parallel students. Note also that the general level of productive grades is higher for full-time occupational degree students than it was for university parallel students.

Productive grades may not be the most important measure of success for occupational students. If the student perceives that what is being learned will further his or her qualifications to get and hold a job in the field of work they have selected, they are likely to persist. If this is not so, they will likely move on, no matter what grades may have been forthcoming. Also, in many programs, occupational degree students quickly become identified with the faculty and fellow students of the program. This may provide the occupational student with a greater sense of belonging, and a closer relationship with faculty and staff of the college, than is often available to the university parallel student.

College Size. As was the case previously, there is a clear tendency for the larger colleges to have lower retention rates. However, the converse is not necessarily true. As may be seen in Figure 15, the retention rates of both the larger and the smaller colleges tend to be lower than those of the middle-sized colleges.

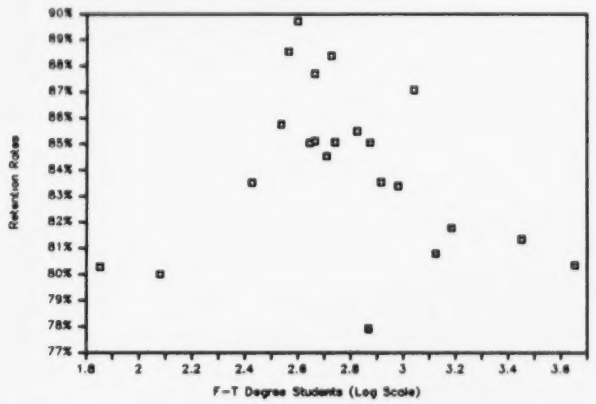

Figure 15. College Size and the Retention of Full-Time Degree Students

Figure 15 has a logarithmic scale for full-time student enrollment. This scale visually separates the very small colleges from the mid-sized colleges, and reduces the separation of the mid-sized colleges from the largest colleges. The data represented in Figure 15 may be found in Table 15.

The lower retention associated with the larger colleges is possibly related to the likelihood that a student in a large college may become lost in the mass and feel that he or she is merely a number or a nameless face in the crowd. If the student feels this way, he or she will likely have

more difficulty establishing a personal relationship with an individual faculty or staff member, and such a relationship is often instrumental to the student's success. The lower retention noted at the smaller colleges is more difficult to understand.

OBSERVATIONS AND GENERALIZATIONS

On balance, the change from quarters to semesters probably has more positive aspects than negative. The following observations summarize the changes (or lack of change) that took place as the Virginia Community College System moved from the quarter calendar to the semester calendar in the 1988-89 academic year.

- The overall annual full-time equivalent student enrollment continued to increase despite a lower Fall Semester enrollment. All but two of the colleges showed increases in annual FTES enrollment.
- Fall term full-time university parallel degree student enrollment increased sharply, but this was more than offset by a corresponding decrease in full-time occupational degree student enrollment.
- The number of 18 to 21 year old full-time students continued to increase.
- The gain in retention of students from fall to spring was dramatic, and largely accounted for the increase in annual FTES enrollment.
- Productive grades continue to be highly correlated with student retention, particularly for full-time university parallel degree students.
- Both the largest and the smallest colleges tend to have lower retention rates for full-time degree students than mid-sized colleges.

APPENDIX

DATA TABLES

Table 1. Enrollment at VCCS Colleges, Annual FTES

College	1985-86	1986-87	1987-88	1988-89
BRCC	1,008	1,031	1,089	1,177
CVCC	1,707	1,722	1,733	1,848
DSLCC	725	718	737	788
DCC	1,296	1,302	1,414	1,704
ESCC	235	246	251	263
GCC	701	853	999	1,091
JSRCC	4,065	4,168	4,386	4,847
JTCC	1,795	1,892	1,874	1,887
LFCC	802	891	921	1,116
MECC	1,352	1,515	1,485	1,409
NRCC	1,479	1,651	1,776	1,912
NVCC	14,927	15,826	16,805	17,533
PHCC	767	855	907	966
PDCCC	614	610	574	526
PVCC	1,521	1,578	1,693	1,781
RCC	552	637	699	755
SsVCC	971	1,106	1,279	1,460
SwVCC	2,112	2,347	2,502	2,541
TNCC	2,895	3,036	3,261	3,378
TCC	7,133	7,853	8,511	9,235
VHCC	1,052	1,139	1,265	1,299
VWCC	2,602	2,819	3,009	3,173
WCC	1,069	1,133	1,140	1,276
VCCS	51,380	54,928	58,310	61,965

Source: VCCS Enrollment Report 00221

Table 2. Enrollment at VCCS Colleges, Fall Term FTES

College	1985-86	1986-87	1987-88	1988-89
BRCC	1,059	1,072	1,148	1,189
CVCC	1,741	1,845	1,783	1,775
DSLCC	734	741	732	738
DCC	1,182	1,197	1,302	1,540
ESCC	235	256	256	244
GCC	746	898	1,046	1,040
JSRCC	4,114	4,246	4,381	4,397
JTCC	1,883	1,853	1,933	1,665
LFCC	861	948	968	1,101
MECC	1,350	1,517	1,462	1,300
NRCC	1,431	1,664	1,786	1,851
NVCC	15,285	15,871	16,793	16,018
PHCC	762	876	934	935
PDCCC	564	592	561	482
PVCC	1,552	1,636	1,770	1,703
RCC	588	632	732	693
SsVCC	929	976	1,259	1,349
SwVCC	2,073	2,310	2,476	2,170
TNCC	2,885	3,009	3,305	3,149
TCC	6,813	7,636	8,427	8,170
VHCC	1,050	1,099	1,239	1,223
VWCC	2,683	2,943	3,137	3,022
WCC	991	1,034	1,060	1,095
VCCS	51,511	54,851	58,490	56,849

Source: VCCS Enrollment Report, Fall Term End of Term Report, Table 3T

Table 3. Enrollment at VCCS Colleges, Fall Term Headcount

College	1985-86	1986-87	1987-88	1988-89
BRCC	1,960	2,382	2,467	2,556
CVCC	3,087	3,899	3,727	3,774
DSLCC	1,068	1,355	1,486	1,416
DCC	1,762	1,973	2,289	3,101
ESCC	469	454	442	474
GCC	1,753	2,212	2,263	2,282
JSRCC	10,424	11,309	11,160	11,588
JTCC	3,230	4,556	5,126	4,468
LFCC	1,751	2,230	2,254	2,498
MECC	2,082	3,862	2,820	2,841
NRCC	2,214	3,248	3,492	3,367
NVCC	31,878	34,312	35,482	33,466
PHCC	1,554	1,817	1,815	1,813
PDCCC	636	1,298	1,245	1,095
PVCC	2,875	4,139	4,361	4,198
RCC	967	1,437	1,913	1,608
SsVCC	1,103	1,852	2,346	2,536
SwVCC	3,969	5,718	6,180	6,994
TNCC	5,337	6,445	6,993	6,701
TCC	13,715	15,605	16,903	16,936
VHCC	1,615	1,759	2,065	2,102
VWCC	5,950	7,098	7,944	7,389
WCC	1,909	2,086	1,970	2,070
VCCS	101,308	121,046	126,743	125,273

Source: VCCS Enrollment Report, Fall Term End of Term Report, Table 1C

Table 4. Enrollment at VCCS Colleges, Fall Term Full-Time Students

College	1985-86	1986-87	1987-88	1988-89
BRCC	546	544	633	692
CVCC	844	891	868	926
DSLCC	445	503	486	524
DCC	767	745	827	942
ESCC	142	161	157	148
GCC	319	403	500	513
JSRCC	1,934	1,883	1,988	2,304
JTCC	729	789	793	734
LFCC	428	466	475	599
MECC	823	958	1,035	954
NRCC	896	1,099	1,186	1,267
NVCC	6,865	7,375	8,052	8,041
PHCC	386	499	522	559
PDCCC	210	328	278	190
PVCC	653	675	799	800
RCC	309	310	337	301
SsVCC	481	609	746	824
SwVCC	1,219	1,413	1,535	1,526
TNCC	1,400	1,410	1,601	1,508
TCC	3,269	3,631	4,172	4,171
VHCC	789	832	880	883
VWCC	1,419	1,482	1,567	1,627
WCC	623	641	719	742
VCCS	25,496	27,647	30,156	30,775

Source: VCCS Enrollment Report, Fall Term End of Term Report, Table 1C

Table 5. Enrollment at VCCS Colleges, Fall Term Part-Time Students

College	1985-86	1986-87	1987-88	1988-89
BRCC	1,414	1,838	1,834	1,864
CVCC	2,243	3,008	2,859	2,848
DSLCC	623	852	1,000	892
DCC	995	1,228	1,462	2,159
ESCC	327	293	285	326
GCC	1,434	1,809	1,763	1,769
JSRCC	8,490	9,426	9,172	9,284
JTCC	2,501	3,767	4,333	3,734
LFCC	1,323	1,764	1,779	1,899
MECC	1,259	2,904	1,785	1,887
NRCC	1,318	2,149	2,306	2,100
NVCC	25,013	26,937	27,430	25,425
PHCC	1,168	1,318	1,293	1,254
PDCCC	426	970	967	905
PVCC	2,222	3,464	3,562	3,398
RCC	658	1,127	1,576	1,307
SsVCC	622	1,243	1,600	1,712
SwVCC	2,750	4,305	4,645	5,468
TNCC	3,937	5,035	5,392	5,193
TCC	10,446	11,974	12,731	12,765
VHCC	826	927	1,185	1,219
VWCC	4,531	5,616	6,377	5,762
WCC	1,286	1,445	1,251	1,328
VCCS	75,812	93,399	96,587	94,498

Source: VCCS Enrollment Report, Fall Term End of Term Report, Table 1C

Table 6. Actual and Projected Enrollment of 18 to 21 Year Old Full-Time Students

Year	Actual	Constant Share Model	Constant Enrollment Model
1981	21,271	-----	-----
1982	21,339	-----	-----
1983	19,425	19,425	19,425
1984	16,355	19,013	17,585
1985	14,953	18,408	14,876
1986	16,225	17,757	11,968
1987	18,255	17,417	10,445
1988	19,385	17,586	11,201
1989	-----	17,959	12,871
1990	-----	18,071	13,371

Source: "The Shrinking Foundation: Full Time Student Enrollment From the 18-21 Age Group in the Virginia Community College System" (Richmond: Virginia Community College System, February 1985), with additional data on actual enrollments for 1985 through 1988 Fall terms.

Table 7. Full-Time Degree Students: Fall 1987 and Fall 1988

College	Full-Time University Parallel Degree Students		Full-Time Occupational Degree Students		All Full-Time Degree Students	
	Fall 1987	Fall 1988	Fall 1987	Fall 1988	Fall 1987	Fall 1988
BRCC	222	235	214	228	436	463
CVCC	212	286	250	248	462	534
DSLCC	132	166	252	233	384	399
DCC	147	208	171	159	318	367
ESCC	31	26	42	45	73	71
GCC	164	186	168	158	332	344
JSRCC	302	348	478	478	780	826
JTCC	136	137	331	304	467	441
LFCC	263	354	176	195	439	549
MECC	379	356	375	382	754	738
NRCC	319	357	576	600	895	957
NVCC	3,100	2,829	2,020	1,672	5,120	4,501
PHCC	208	266	198	197	406	463
PDCCC	129	60	75	60	204	120
PVCC	531	575	183	174	714	749
RCC	121	128	143	139	264	267
SsVCC	165	227	207	284	372	511
SwVCC	547	596	513	502	1,060	1,098
TNCC	716	708	668	619	1,384	1,327
TCC	1,515	1,557	1,387	1,272	2,902	2,829
VHCC	187	203	480	465	667	668
VWCC	880	990	560	535	1,440	1,525
WCC	134	149	270	314	404	463
VCCS	10,540	10,947	9,737	9,263	20,277	20,210

Table 8. Change in Full-Time Degree Student Enrollment: Fall 1987 to Fall 1988

	Full-Time University Parallel Degree Students		Full-Time Occupational Degree Students		All Full-Time Degree Students	
College	Number	Percent	Number	Percent	Number	Percent
BRCC	13	5.9%	14	6.5%	27	6.2%
CVCC	74	34.9%	-2	-0.8%	72	15.6%
DSLCC	34	25.8%	-19	-7.5%	15	3.9%
DCC	61	41.5%	-12	-7.0%	49	15.4%
ESCC	-5	-16.1%	3	7.1%	-2	-2.7%
GCC	22	13.4%	-10	-6.0%	12	3.6%
JSRCC	46	15.2%	0	0.0%	46	5.9%
JTCC	1	0.7%	-27	-8.2%	-26	-5.6%
LFCC	91	34.6%	19	10.8%	110	25.1%
MECC	-23	-6.1%	7	1.9%	-16	-2.1%
NRCC	38	11.9%	24	4.2%	62	6.9%
NVCC	-271	-8.7%	-348	-17.2%	-619	-12.1%
PHCC	58	27.9%	-1	-0.5%	57	14.0%
PDCCC	-69	-53.5%	-15	-20.0%	-84	-41.2%
PVCC	44	8.3%	-9	-4.9%	35	4.9%
RCC	7	5.8%	-4	-2.8%	3	1.1%
SsVCC	62	37.6%	77	37.2%	139	37.4%
SwVCC	49	9.0%	-11	-2.1%	38	3.6%
TNCC	-8	-1.1%	-49	-7.3%	-57	-4.1%
TCC	42	2.8%	-115	-8.3%	-73	-2.5%
VHCC	16	8.6%	-15	-3.1%	1	0.1%
VWCC	110	12.5%	-25	-4.5%	85	5.9%
WCC	15	11.2%	44	16.3%	59	14.6%
VCCS	407	3.9%	-474	-4.9%	-67	-0.3%

Table 9. Retention of Full-Time Degree Students From Fall to Spring Term

College	1985-86	1986-87	1987-88	1988-89
DLCC	80.6%	80.6%	82.6%	89.7%
DCC	82.4%	83.7%	84.6%	88.6%
CVCC	82.9%	80.9%	82.3%	88.4%
WCC	83.9%	82.7%	81.4%	87.7%
BRCC	80.6%	83.8%	84.6%	87.7%
SwVCC	77.5%	77.7%	82.1%	87.1%
GCC	80.1%	81.9%	79.2%	85.8%
VHCC	81.2%	83.4%	82.8%	85.5%
PHCC	82.0%	78.1%	78.1%	85.1%
LFCC	77.8%	81.9%	79.5%	85.1%
JTCC	71.2%	74.6%	77.5%	85.0%
PVCC	76.0%	73.1%	75.6%	85.0%
SsVCC	76.7%	77.2%	84.4%	84.5%
RCC	80.2%	77.5%	79.9%	83.5%
JSRCC	73.2%	75.1%	77.2%	83.5%
NRCC	76.0%	75.3%	80.3%	83.4%
VCCS	74.5%	75.4%	76.5%	83.0%
VWCC	77.4%	74.5%	73.1%	81.8%
TCC	72.4%	74.3%	76.0%	81.3%
TNCC	72.3%	71.3%	73.7%	80.8%
ESCC	80.0%	77.6%	82.2%	80.3%
NVCC	70.8%	72.8%	73.8%	80.3%
PDCCC	61.1%	63.9%	61.8%	80.0%
MECC	68.7%	72.1%	67.8%	77.9%

Table 10. Retention of Full-Time University Parallel Degree Students From Fall to Spring Term

College	1985-86	1986-87	1987-88	1988-89
DCC	84.7%	89.6%	85.7%	91.8%
DLCC	80.5%	73.9%	81.8%	90.4%
VHCC	82.7%	89.0%	84.5%	89.2%
GCC	80.3%	82.7%	79.9%	89.2%
CVCC	83.4%	81.9%	78.8%	89.2%
SwVCC	79.1%	79.6%	82.6%	88.6%
BRCC	77.4%	80.0%	85.6%	86.8%
PVCC	76.4%	71.4%	75.9%	85.2%
SsVCC	77.3%	72.8%	83.6%	85.0%
LFCC	82.0%	85.1%	79.5%	85.0%
WCC	83.3%	84.6%	83.6%	84.6%
PHCC	82.6%	77.9%	77.4%	84.6%
PDCCC	58.3%	63.8%	59.7%	83.3%
VCCS	73.5%	73.9%	75.4%	82.3%
NRCC	67.2%	72.1%	78.4%	81.5%
TCC	71.8%	73.5%	75.6%	81.3%
ESCC	83.3%	78.4%	83.9%	80.8%
VWCC	74.1%	71.9%	71.5%	80.6%
RCC	79.1%	76.3%	80.2%	80.5%
JTCC	59.2%	73.4%	76.5%	80.3%
JSRCC	74.1%	75.7%	74.5%	80.2%
NVCC	71.7%	71.4%	73.9%	79.9%
TNCC	69.7%	67.0%	70.0%	78.5%
MECC	63.6%	72.9%	65.2%	74.4%

Table 11. Retention of Full-Time Occupational Degree Students From Fall to Spring Term

College	1985-86	1986-87	1987-88	1988-89
DLCC	80.6%	83.5%	82.9%	89.3%
WCC	84.1%	81.9%	80.4%	89.2%
BRCC	83.3%	87.3%	83.6%	88.6%
CVCC	82.4%	80.2%	85.2%	87.5%
JTCC	75.0%	75.1%	77.9%	87.2%
RCC	80.7%	78.2%	79.7%	86.3%
JSRCC	72.8%	74.8%	78.9%	86.0%
PHCC	81.5%	78.3%	78.8%	85.8%
SwVCC	76.0%	75.8%	81.5%	85.3%
LFCC	72.7%	78.1%	79.5%	85.1%
NRCC	79.7%	76.9%	81.4%	84.5%
PVCC	75.1%	78.4%	74.9%	84.5%
DCC	81.1%	79.6%	83.6%	84.3%
SsVCC	76.4%	80.7%	85.0%	84.2%
VHCC	80.8%	81.1%	82.1%	83.9%
VWCC	80.9%	77.2%	75.2%	83.9%
VCCS	75.4%	76.7%	77.7%	83.8%
TNCC	74.6%	75.7%	77.7%	83.4%
GCC	79.9%	80.8%	78.6%	81.6%
TCC	73.0%	75.1%	76.4%	81.4%
MECC	71.9%	71.5%	70.4%	81.2%
NVCC	69.6%	74.8%	73.5%	81.0%
ESCC	77.8%	77.1%	81.0%	80.0%
PDCCC	65.9%	64.2%	65.3%	76.7%

Table 12. Productive Grades and the Retention of Full-Time Degree Students From Fall, 1988 to Spring, 1989

	Retention %	Productive Grades %	Calculated Retention %
WCC	87.7%	81.3%	87.6%
VHCC	85.5%	80.7%	87.4%
DSLCC	89.7%	78.7%	86.6%
SwVCC	87.1%	78.6%	86.6%
GCC	85.8%	78.3%	86.5%
DCC	88.6%	76.5%	85.8%
ESCC	80.3%	76.1%	85.6%
CVCC	88.4%	75.7%	85.4%
LFCC	85.1%	75.7%	85.4%
BRCC	87.7%	75.6%	85.4%
RCC	83.5%	73.5%	84.6%
SsVCC	84.5%	72.5%	84.2%
PDCCC	80.0%	71.5%	83.9%
PVCC	85.0%	69.9%	83.2%
PHCC	85.1%	69.6%	83.1%
NRCC	83.4%	69.5%	83.1%
JTCC	85.0%	69.0%	82.9%
MECC	77.9%	68.8%	82.8%
TCC	81.3%	68.6%	82.7%
NVCC	80.3%	67.3%	82.2%
VWCC	81.8%	66.2%	81.8%
JSRCC	83.5%	65.4%	81.5%
TNCC	80.8%	60.8%	79.7%

Regression Output:	
Constant	0.562421493953257
Std Err of Y Est	0.0245846769947433
R Squared	0.426812835790282
No. of Observations	23
Degrees of Freedom	21
X Coefficient(s)	0.385908441231561
Std Err of Coef.	0.0975897315250117

Table 13. Productive Grades and the Retention of Full-Time University Parallel Degree Students From Fall to Spring Term

	Retention %	Productive Grades %	Calculated Retention %
DCC	91.8%	79.4%	88.5%
VHCC	89.2%	79.3%	88.4%
ESCC	80.8%	78.9%	88.2%
CVCC	89.2%	78.6%	88.0%
SwVCC	88.6%	78.1%	87.7%
DSLCC	90.4%	78.0%	87.7%
GCC	89.2%	77.7%	87.5%
WCC	84.6%	75.6%	86.3%
LFCC	85.0%	74.0%	85.4%
SsVCC	85.0%	73.2%	85.0%
PDCCC	83.3%	73.0%	84.9%
BRCC	86.8%	72.4%	84.5%
PVCC	85.2%	70.3%	83.3%
RCC	80.5%	70.0%	83.1%
JTCC	80.3%	68.5%	82.3%
PHCC	84.6%	68.1%	82.0%
TCC	81.3%	66.4%	81.1%
NRCC	81.5%	66.1%	80.9%
NVCC	79.9%	65.7%	80.7%
MECC	74.4%	65.1%	80.4%
VWCC	80.6%	64.5%	80.0%
JSRCC	80.2%	62.7%	79.0%
TNCC	78.5%	57.6%	76.1%

Regression Output:	
Constant	0.434055695707535
Std Err of Y Est	0.0271830948118529
R Squared	0.639437760668438
No. of Observations	23
Degrees of Freedom	21
X Coefficient(s)	0.567519627765576
Std Err of Coef.	0.0929955614020524

Table 14. Productive Grades and the Retention of Full-Time Occupational Degree Students From Fall to Spring Term

	Retention %	Productive Grades %	Calculated Retention %
WCC	89.2%	84.2%	86.7%
VHCC	83.9%	81.4%	86.1%
DSLCC	89.3%	79.2%	85.6%
SwVCC	85.3%	79.2%	85.6%
GCC	81.6%	79.1%	85.6%
LFCC	85.1%	78.8%	85.5%
BRCC	88.6%	78.7%	85.5%
RCC	86.3%	76.8%	85.1%
ESCC	80.0%	74.4%	84.5%
DCC	84.3%	72.4%	84.1%
CVCC	87.5%	72.3%	84.1%
MECC	81.2%	72.1%	84.0%
SsVCC	84.2%	72.0%	84.0%
PHCC	85.8%	72.0%	84.0%
TCC	81.4%	71.5%	83.9%
NRCC	84.5%	71.4%	83.9%
PDCCC	76.7%	70.1%	83.6%
NVCC	81.0%	69.9%	83.5%
VWCC	83.9%	69.5%	83.4%
JTCC	87.2%	69.3%	83.4%
PVCC	84.5%	68.6%	83.2%
JSRCC	86.0%	67.3%	82.9%
TNCC	83.4%	64.5%	82.3%

Regression Output:	
Constant	0.680091918558519
Std Err of Y Est	0.0294884707550088
R Squared	0.131520339770351
No. of Observations	23
Degrees of Freedom	21
X Coefficient(s)	0.222115122587517
Std Err of Coef.	0.124552326956777

Table 15. Enrollment and Retention of Full-Time Degree Students, Fall Semester, 1988, In Descending Order by Full-Time Degree Enrollment

	Full-Time Degree Students			Fall to Spring Retention Rate			
	Univ. Parallel	Occup.	All	Univ. Parallel	Occup.	All	*Log Enr.*
ESCC	26	45	71	80.8%	80.0%	80.3%	*1.85*
PDCCC	60	60	120	83.3%	76.7%	80.0%	*2.07*
RCC	128	139	267	80.5%	86.3%	83.5%	*2.42*
GCC	186	158	344	89.2%	81.6%	85.8%	*2.53*
DCC	208	159	367	91.8%	84.3%	88.6%	*2.56*
DSLCC	166	233	399	90.4%	89.3%	89.7%	*2.60*
JTCC	137	304	441	80.3%	87.2%	85.0%	*2.64*
BRCC	235	228	463	86.8%	88.6%	87.7%	*2.66*
WCC	149	314	463	84.6%	89.2%	87.7%	*2.66*
PHCC	266	197	463	84.6%	85.8%	85.1%	*2.66*
SsVCC	227	284	511	85.0%	84.2%	84.5%	*2.70*
CVCC	286	248	534	89.2%	87.5%	88.4%	*2.72*
LFCC	354	195	549	85.0%	85.1%	85.1%	*2.73*
VHCC	203	465	668	89.2%	83.9%	85.5%	*2.82*
MECC	356	382	738	74.4%	81.2%	77.9%	*2.86*
PVCC	575	174	749	85.2%	84.5%	85.0%	*2.87*
JSRCC	348	478	826	80.2%	86.0%	83.5%	*2.91*
NRCC	357	600	957	81.5%	84.5%	83.4%	*2.98*
SwVCC	596	502	1,098	88.6%	85.3%	87.1%	*3.04*
TNCC	708	619	1,327	78.5%	83.4%	80.8%	*3.12*
VWCC	990	535	1,525	80.6%	83.9%	81.8%	*3.18*
TCC	1,557	1,272	2,829	81.3%	81.4%	81.3%	*3.45*
NVCC	2,829	1,672	4,501	79.9%	81.0%	80.3%	*3.65*

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